

ABB BALDOR RELIANCE III

Customer information packet

VDRX282544T

25HP, 1775//1475RPM, 3PH, 60/50HZ, 284TC, XPF

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	XPFC
Frame	284TC
Frame Material	Iron
Frequency	50.00 Hz 60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 50 HZ 25.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	380.0 V @ 50 HZ 230.0 V @ 60 HZ 190.0 V @ 50 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV UL
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	64.000 A @ 208.0 V 62.000 A @ 230.0 V 60.000 A @ 190.0 V 31.000 A @ 460.0 V 30.000 A @ 380.0 V
Design Code	A
Drip Cover	No Drip Cover

Part Detail

Revision	K
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	10WGZ651
Layout	10LYG292
Eff. date	07-17-2023
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	06-06-2019

Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	30.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1054M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	28.67 IN
Power Factor	81
Product Family	Hazardous Location Motor
Pulley Face Code	C-Face
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1775 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1401XPSLEV												
NO.							CC	010A				
S/N							TEMP CODE	T3C				
SPEC.	10-0000-0850						INV.TYPE	PWM				
CAT.NO.	VDRX282544T						C HP FR	60	C HP TO	90		
HP	25//20						CT HZ FROM	6	CT HZ TO	60		
VOLTS	230/460//190/380						VT HZ FROM	6	VT HZ TO	60		
AMPS	62/31//60/30						MAG CUR	28/14				
RPM	1775//1475						MX RPM	2700				
HZ	60//50	PH	3	CL	F	NOM.EFF.	93.6					
SER.F.	1.00	DES	A	SL HZ	0.83	WK2	4.13					
FRAME	284TC	RATING		40C AMB-CONT								
	55C AMB @ 1.0 SF, 60C RISE											
	1.15SF ON SINEWAVE						NEMA MG-1 PT.5,IP55					

Parts List

Part number	Description	Quantity
SA370405	SA 10-0000-0850	1.000 ea
RA360055	RA 10-0000-0850	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP1401XPSLEV	SS XP INV UL CSA-EEV CC CL-I GP-C&D	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1081C	ALUM XP CAUTION LABEL (COL PLANT ONLY-	1.000 ea
10FH1008A01P	310 FAN HOUSING X-PROOF MACH. W/EPOXY PR	1.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 ea
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	3.000 ea
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
HA3050A03	3/8-16 X 2.25" GRADE 8 BOLT	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HA2066A02	ALUM SLINGER 309 BRG DRILL RIG MOTOR)	1.000 ea
80XN1032J06	10-32 X 3/8 SET SCREW, HEX SOC, CUP PT	2.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
HA4017A06	/125 X 3.00 GREASER EXT. (F/S)	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW4505A02	BREATHING/DRAIN-EXP PROOF-.250-18 PTF AIS	1.000 ea
HW3023E06	.125 X .625 SPIRAL SPRING PIN	1.000 ea
10EP1710A09P	FACE MTD. EP MACH XPFC W/HW4505A02 W/PRI	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HA3050A03	3/8-16 X 2.25" GRADE 8 BOLT	4.000 ea
HA2067A01	ALUM SLINGER 311 BRG DRILL RIG MOTOR	1.000 ea
80XN1032J06	10-32 X 3/8 SET SCREW, HEX SOC, CUP PT	2.000 ea
10XN2520K40	1/4-20 X 2-1/2 HEX HD CAPSCREW,GRADE 5,Z	4.000 ea

HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW4505A02	BREATHER/DRAIN-EXP PROOF-.250-18 PTF AIS	1.000 ea
HW3023E06	.125 X .625 SPIRAL SPRING PIN	1.000 ea
10EP1701A57LP5	FR ENDPLATE, MACH PRIMED & PAINTED	1.000 ea
12CB1003A02P	KOBX, MACH 1.50 NPT GROUP C MTRS ,EPOXY	1.000 ea
10XN3118K24	5/16-18 X 1.50" HEX HD, GRADE 5	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
WD1000B19	TERMINAL BURNDY L250HP	1.000 ea
10XN3816K08	3/8-16 X .50 HEX HD CAP SCREW GRADE 5	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	1.000 ea
12CB1502A01P	CONDUIT BOX LID MACH. GROUP C MTRS	1.000 ea
84XN5013J32	SOCKET HD.CAP SCR,1/2-13 X 2"LG,ALLOY ST	10.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	10.000 ea
MG1025G29	WILKOFAS, 789.229, DARK CHARCOAL GRAY	0.125 ga
PK6014	STEEL STRAP FOR 309-312 BASELESS MOTORS	4.000 ea
10PA1051	PKGP CRATE 310 VERT 32X30-1/2X17-1/2 RIS	1.000 ea
10XN3816K10	BOLT, 3/8-16 X 5/8 HHCS YZ	4.000 ea
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

AC Induction Motor Performance Data

Record # 67462

Typical performance - not guaranteed values

Winding: 10WGZ651-R004				Type: 1054M		Enclosure: XPFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		25		Full Load Torque		74.02 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		62/31		Breakdown Torque		262 LB-FT	
R.P.M.		1775		Pull-up Torque		118 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		142 LB-FT	
NEMA Design Code		A	KVA Code	J	Starting Current		223 A
Service Factor (S.F.)		1		No-load Current		13.6 A	
NEMA Nom. Eff.		93.6	Power Factor	81	Line-line Res. @ 25°C		0.2345 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		51°C	
				Locked-rotor Power Factor		30.6	

Load Characteristics 460 V, 60 Hz, 25 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	43	65	76	81	84	85
Efficiency	88.3	92.8	93.9	94	93.7	93.1
Speed	1794.1	1789.3	1783.5	1777.8	1770.8	1763.8
Line amperes	15.3	19.3	24.6	30.6	37.2	44.5

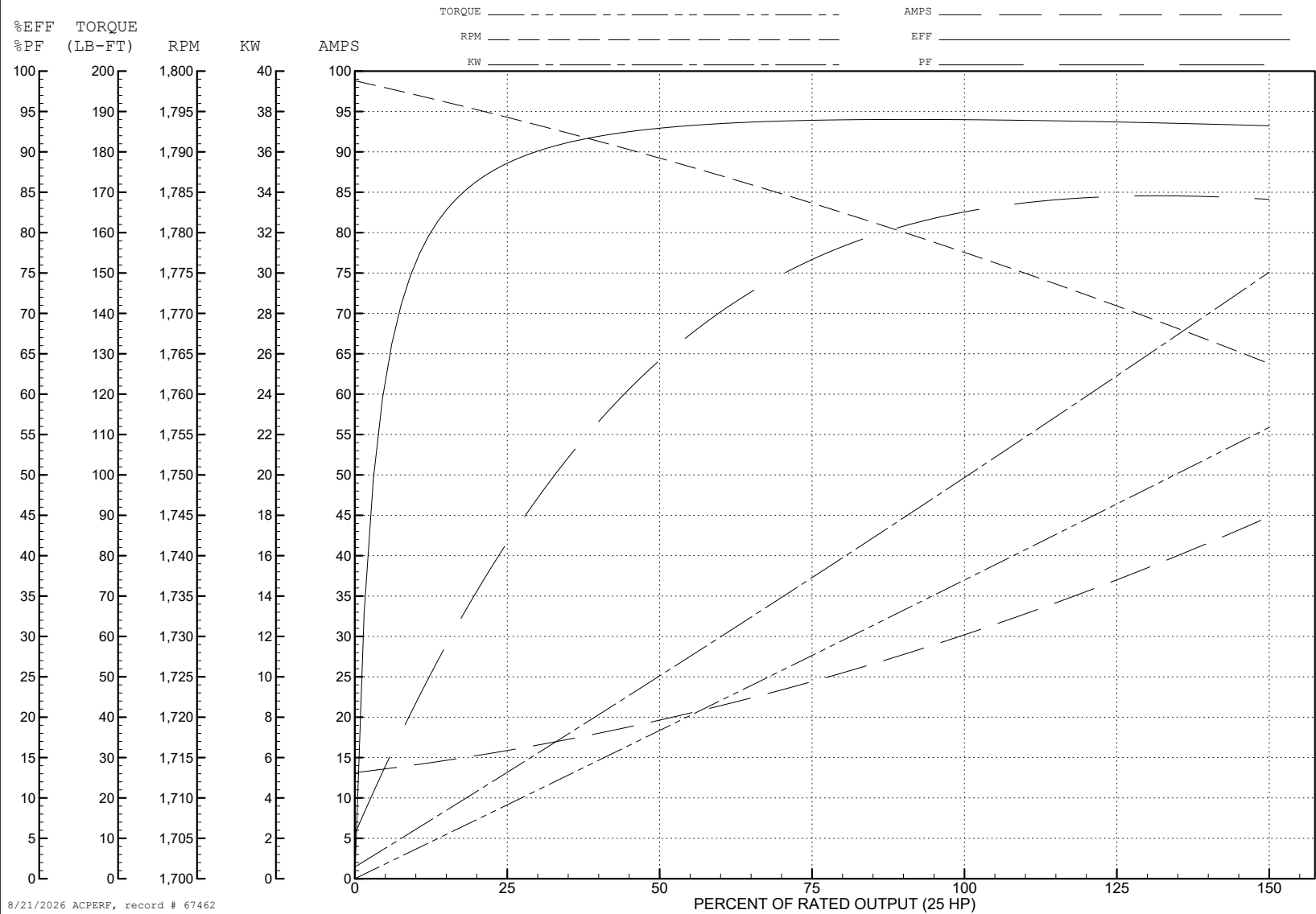
ABB Motors and Mechanical Inc.

WINDING # 10WGZ651

Typical performance - not guaranteed values.

25 HP 3 PH 60 HZ 1775 RPM 460 V 1054M

TORQUES (LB-FT): PO=262 PU=118 LR=142 LRA=223



AC Induction Motor Performance Data

Record # 74484

Typical performance - not guaranteed values

Winding: 10WGZ651-R024				Type: 1054M		Enclosure: XPFC	
Nameplate Data				380 V, 50 Hz: High Voltage Connection			
Rated Output (HP)		25//20		Full Load Torque		71.24 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		62/31//60/30		Breakdown Torque		254 LB-FT	
R.P.M.		1775//1475		Pull-up Torque		121 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque		146 LB-FT	
NEMA Design Code		A	KVA Code	J	Starting Current		213 A
Service Factor (S.F.)		1		No-load Current		13.24 A	
NEMA Nom. Eff.		93.6	Power Factor	81	Line-line Res. @ 25°C		0.231 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		48°C	
S.F. Amps				Temp. Rise @ S.F. Load		58°C	
				Locked-rotor Power Factor		33.9	
				Rotor inertia		4.31 LB-FT2	

Load Characteristics 380 V, 50 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	43	66	76	82	84	85
Efficiency	88.8	93	93.8	93.8	93.3	92.9
Speed	1494	1490	1484	1479	1472	1465
Line amperes	14.85	18.69	23.83	29.65	36.06	43.17

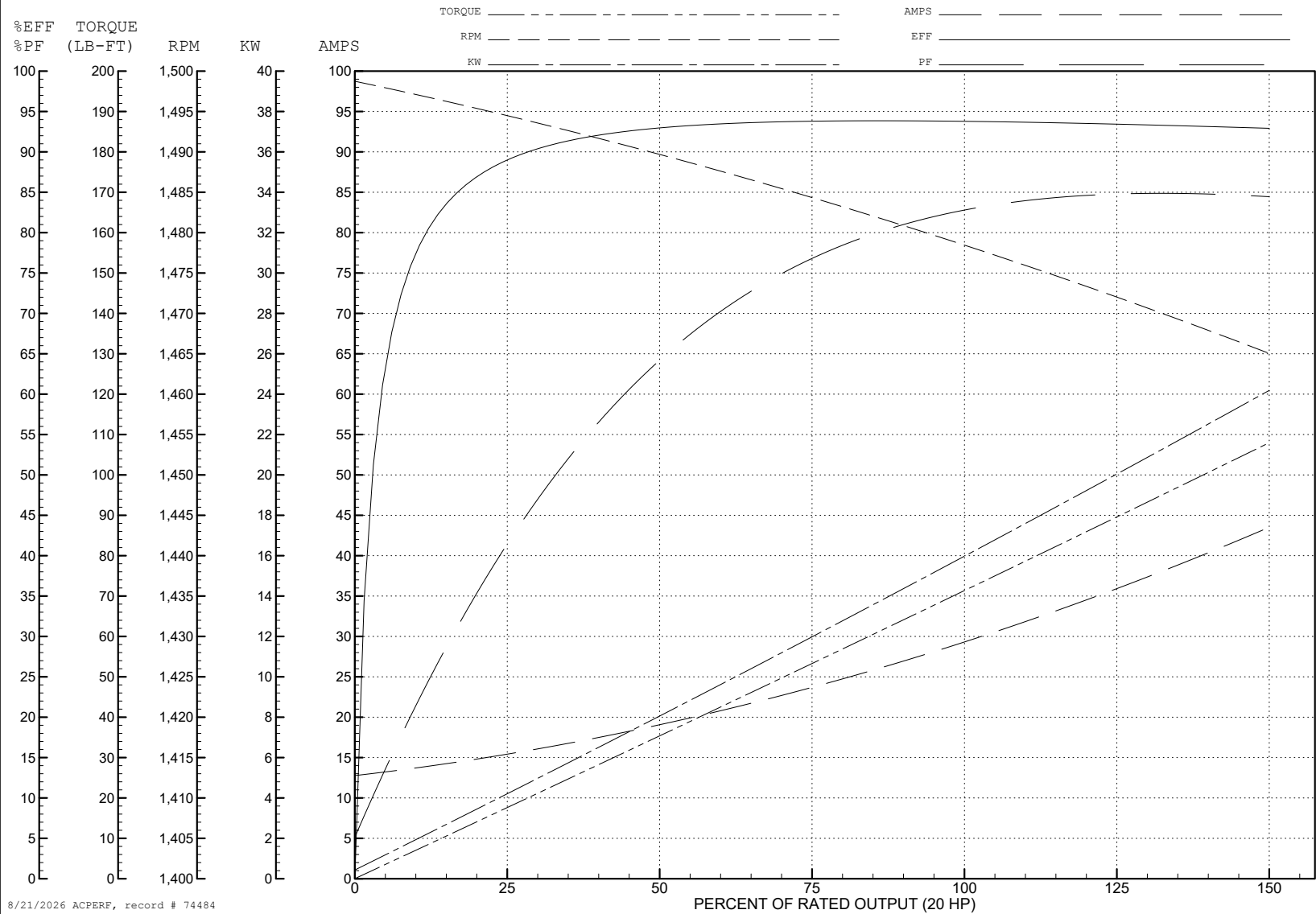
ABB Motors and Mechanical Inc.

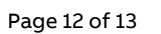
WINDING # 10WGZ651

Typical performance - not guaranteed values.

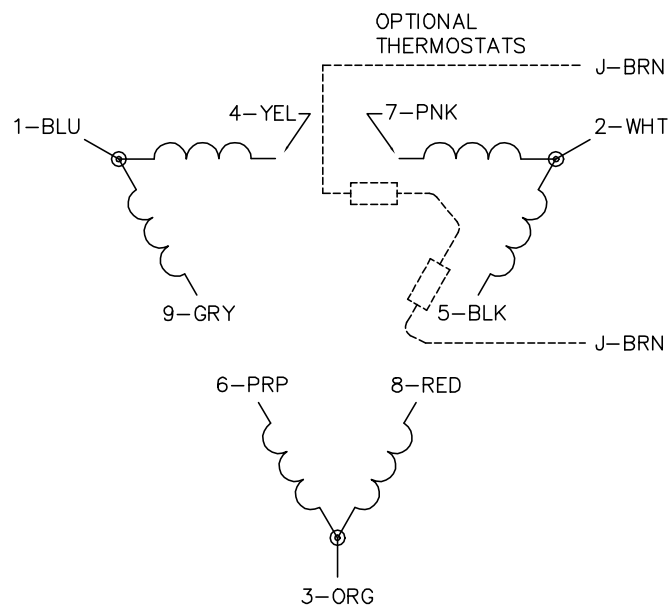
20 HP 3 PH 50 HZ 1479 RPM 380 V 1054M

TORQUES (LB-FT): PO=254 PU=121 LR=146 LRA=213

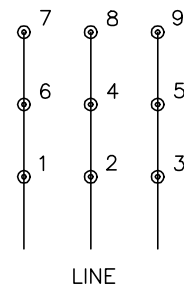




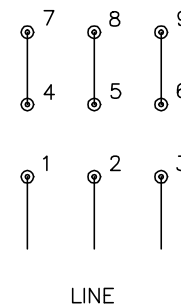
CD0180



LOW VOLTAGE
(2D)



HIGH VOLTAGE
(1D)



NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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